

Growing Up in Scotland

Birth Cohort 1

Sweep 8.5 (Web-CATI) - Primary 7/Age 11- 2016/17

Background note to accompany the dataset

Overview

Between the eighth and ninth face-to-face sweeps of data collection with Birth Cohort 1 of the Growing Up in Scotland study (GUS), a web and telephone based survey was carried out with a parent/carer of the cohort child. This document contains details about the 'sweep 8.5' web-CATI survey only. For details about sweep 8 and the wider GUS study, see related documentation available elsewhere on the UKDS website:

- http://doc.ukdataservice.ac.uk/doc/5760/mrdoc/pdf/5760_userguide_cohort1_sweep8.pdf
- http://doc.ukdataservice.ac.uk/doc/5760/mrdoc/pdf/5760_data_documentation_cohort1_sweep8.pdf

Methodology

This sweep utilised a significantly shorter questionnaire than that used for face-to-face data collection, taking participants no longer than 15 minutes to complete either online or by telephone.

Respondents were the main carers of children who were members of 'Birth Cohort 1' (BC1). BC1 is comprised of a nationally representative sample of 5217 children living in Scotland when they were 10 months old and who were born between June 2004 and May 2005. At the time of this data collection, children in the cohort were aged 11 years old and were in their first term of Primary 7.

All parents were initially informed about the upcoming survey via a routine study keeping-in-touch mailing. They subsequently received an advance letter as well as advance emails informing them about the survey. The letter/email highlighted that they would be asked to complete a short, online questionnaire (in contrast with previous face-to-face interviews). Parents were asked to check and, where necessary, update their contact details.

Once the online questionnaire was live, all respondents were sent a further letter and an email (where an email address was available) informing them that the questionnaire was ready to be completed, how to complete it (including providing a unique access code) and providing further information about issues such as confidentiality. Emails included a unique hyperlink which allowed parents to directly access the online questionnaire.

Reminders were sent one week after the online questionnaire went live, via email where this information was available and via post where not. After another week, non-

respondents were contacted via email where available and via telephone where not. Where telephone contact was made, parents were either asked to complete a telephone interview or prompted to complete the online questionnaire.

Fieldwork and response

Two phases of fieldwork were conducted across 2016 and 2017: phase 1 took place from January 2016 to April 2016 and phase 2 took place from January 2017 to April 2017. This phased approach ensured that at the time of data collection, the vast majority of children were aged 11 and in the second term of Primary 7.

The total number of cases issued was 3351. This resulted in 2099 productive interviews, representing a response rate of 63%. Participants were first invited to complete the questionnaire online and if they did not complete it, they were then contacted to complete the interview over the telephone. Of those who completed an interview, 55% (1156) of them completed the questionnaire online whilst the remaining 45% (943) took part in a telephone interview.

There were 1252 unproductive cases. Of these, 60% (748) were a result of non-contact: almost all were cases where there was no answer or where the number was always busy with a small proportion being cases where the telephone number was unusable. A further 14% (107) of the unproductive cases were refusals, and 3% (21) were found to be ineligible, mainly because the child was not in Primary 7 at the time of interview or the child no longer lived in Scotland.

A breakdown of productive and unproductive cases is shown in the table below:

Table 1 – Fieldwork outcomes			
	Phase 1	Phase 2	Total
Issued cases	2526	825	3351
Productive	1513	586	2099
Full telephone	575	365	940
Full web	934	221	1155
Partial telephone	3	0	3
Partial web	1	0	1
Response rate (%)	60%	71%	63%
Unproductive	1013	239	1252
Non-contact	648	100	748
Broken appointment	254	97	351
Refusals/Information refused	83	24	107
Respondent unable to take part (e.g. for health reasons)	2	0	2
Telecommunication difficulties	15	8	23
Cohort child no longer living in Scotland	3	1	4
Other non-response/unproductive	8	9	17

Using the data

The GUS Sweep 8.5 data consists of the following SPSS file:

GUS_SW8.5_B.sav	2099 cases	Birth cohort 1
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The data file contains questionnaire variables (excluding variables used for administrative purposes). The variables included in the file are detailed in Appendix 2. Please note that variable descriptions in the variable list cannot be relied upon to capture the detail of the question wording, or the answer categories used. For the precise question wording, please refer to the questionnaire documentation. A copy of the questionnaire is provided alongside these notes.

The questionnaire covers several topics including:

- Primary school
 - barriers to learning
 - additional support needs
 - homework
- Transition to secondary school
 - placing requests
 - readiness for secondary school
 - parents' concerns and/or preparations
- Child's participation in organised activities/classes

Weighting the data

Two weights were developed for Sweep 8.5 of BC1:

- A cross-sectional weight (DyWTbrth)
- A longitudinal weight (DyWTbth2)

For each sample, the cross-sectional weights should be used for any cross-sectional analysis, i.e. any analysis of Sweep 8.5 data only. All sample members that responded at Sweep 8.5 have a cross-sectional weight.

The longitudinal weight should be used for any analyses of main carers that have responded at every previous sweep of BC1 of GUS. Sample members that have responded at every sweep of GUS have a longitudinal weight.

Further details on the weighting process are included in appendix 1.

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Appendix 1 – Weighting note

1. Overview

Two weights were generated for analysis of information collected during Sweep 8.5 of BC2 Web-CATI survey. The two weights are outlined in Table 1 and are described below.

- A cross-sectional weight (DyWTbrth) for adults that should be used for any cross-sectional analysis of data collected in the Sweep 8.5 web survey. All main carers that responded at Sweep 8.5 have a cross-sectional adult weight.
- A longitudinal weight (DyWTbth2) for analysis of main carers that have responded at every previous sweep of BC2 of GUS.

The Sweep 8.5 survey followed up all main carers who responded at the Sweep 8 interview and gave NatCen permission to be re-contacted. In addition, certain main carers who had not participated at Sweep 8 but who had responded at previous sweeps were contacted if they were still active participants in the study.

Table 1 Description of weight variables in the data file	
Variable name	Label
DyWTbrth	Birth cohort Sweep 8.5 weight
DyWTbth2	Birth cohort Sweep 8.5 weight - longitudinal

2. Weights for main carer interview data

The Sweep 8.5 sample of adult respondents can be split into two groups. For the purposes of describing the weighting these have been named Sample A and Sample B and are defined as follows:

- Sample A – adults who had responded at all previous sweeps
- Sample B – adults who had responded at Sweep 1 but had missed one of more interviews in Sweeps 2-8.

The two samples were treated separately during the weighting. This is because the Sample B respondents are likely to have different response behaviour to those in Sample A, as suggested by their much lower response rates. There were 638 individuals in Sample B, 224 (35%) of which responded at Sweep 8.5. The response rate for Sample A (2,722) was much higher at 69%. The issued and responding sample sizes are given in Table 2.

Table 2 Response rates for the two groups of main interview respondents			
	Issued	Responding	Response rate
Sample A	2,714	1,875	69%
Sample B	637	224	35%
Combined (A+B)	3,351	2,099	63%

Two sets of weights were developed for the responding adults: a cross-sectional weight and a longitudinal weight. Only members of Sample A (who have responded at every sweep of GUS) received a longitudinal weight. This weight is described in more detail in Section 2.1.

All Sweep 8.5 respondents will have a cross-sectional weight (Sample A + B). These are described in more detail in Section 2.2.

2.1 Longitudinal weights for main carer interview data

Longitudinal weights were only generated for respondents in Sample A. A model-based weighting technique was used to develop the Sweep 8.5 longitudinal weights, where response behaviour is modelled using data from previous sweeps. This is the same method used to generate weights for adults who completed the main interview at Sweeps 2 to 8. Ineligible households (deadwood) were not included in the non-response modelling.

Response behaviour was modelled using logistic regression. This models the relationship between an outcome variable (in this case response to Sweep 8.5) and a set of predictor variables. The predictor variables were a set of socio-demographic individual and household characteristics collected from the previous sweeps of the study.

The model generated a predicted probability of response for each individual. A set of non-response weights were generated equal to the inverse of these predicted probabilities; hence respondents who had a lower than average predicted probability received a higher than average weight, increasing their representation in the sample.

Variables found to predict response at Sweep 8.5 are shown in Table 3. All of them were entered in the non-response model which was used to calculate the non-response weights.

Table 3	Variables used in adult non-response weighting (longitudinal sample)
Mother’s age at cohort child’s birth	
Highest education level of respondent	
Respondent’s NSSEC	
Mothers employment status	
Number of visits to the address	
SIMD 2016 quintile	
Last known tenure	

The final Sweep 8.5 weight was calculated as the product of the non-response weight and the Sweep 2 interview weight. The final weights were scaled to the responding Sweep 8.5 sample size, so that the weighted sample size matches the unweighted sample size.

2.2 Cross-sectional weights for main carer interview data

Cross-sectional weights were generated for all respondents at Sweep 8.5 (the combined A and B samples) and should be used for any cross-sectional analysis of Sweep 8.5 data.

Calibration weighting was applied to the combined sample to create the cross-sectional weights. This method adjusts a set of starting weights using an iterative procedure so that they match pre-defined population totals. The resulting weights, when applied to the combined data, will make the survey estimates match the population estimates which in this instance were calculated from Sample A, weighted by the longitudinal weight. Since the longitudinal weight corrects for sampling error and non-response bias at each stage of GUS, the weighted Sample A estimates are the best population estimates available.

The choice of the variables used in the calibration was dictated by the differences remaining after the Sweep 8.5 longitudinal weights were applied to Sample A and the cross-sectional weight from the last completed sweep for Sample B. The variables used in the weighting are listed in Table 4.

Table 4	Variables used in calibration of the adult cross-sectional sample
Whether child was mother's first-born	
Sex of child	
Mother's age at cohort child's birth	
Device	
SIMD 2016 quintile	
Last known tenure	

The calibration adjusts for any differences due to differential non-response between Sample A and Sample B.

2.3 Sample efficiency of main carer interview data

Weighting affects the statistical efficiency of a sample: the more variable the weights the larger the variance of the (weighted) survey estimates. More variable weights will result in larger standard errors and wider confidence intervals, so there is less certainty over where the "true" population values lie.

The precision of weighted survey estimates is indicated by the effective sample size (neff) which measures the size of an (unweighted) simple random sample that would provide the same precision (standard error) as the weighted sample. The efficiency of the weights is given by the ratio of the effective sample size to the actual sample size. The range of the weights, the effective sample size and sample efficiency for both sets of weights are given in Table 5.

Table 5 Range of adult weights and sample efficiency						
	Min	Max	Mean	N	Neff	Efficiency
Main carer cross-sectional weight	.45	9.29	1.00	2099	1142	60.96%
Main carer longitudinal weight	.46	8.82	1.00	1874	1341	63.87%

3. Applying the weights

For each sample, the cross-sectional weights should be used for any cross-sectional analysis, i.e. any analysis of Sweep 8.5 data only. All sample members that responded at Sweep 8.5 have a cross-sectional weight.

The longitudinal weight should be used for any analyses of more than one sweep of data. Sample members that have responded at every sweep of GUS have a longitudinal weight.

Appendix 2 - Variable list

Variable Name	Variable Label
IDNumber	IDNumber
WyHGsx1	Wy - Sex of Child
DyAgeMth	Dy - Age of child at interview, months
DyHGag1	Dy - Age of child at interview, years
DyRespAg	Dy - Respondent Age (dv - ALL)
DyRSex	Dy - Respondent Sex (dv - ALL)
WyHGrsp03	Wy - Whether different respondent to last sweep
DyHGrsp07	Dy - Relationship to study child (dv - ALL)
WyPriSchYr	Wy - What school year is your child currently in?
WyChangeTeach	Wy - negative impact on ability to learn: frequent change of teacher
WyPoorTeach	Wy - negative impact on ability to learn: Teaching of poor quality
WyNotChal	Wy - negative impact on ability to learn: School work not being sufficiently challenging
WyBullCh	Wy - negative impact on ability to learn: Bullying by other children
WyClassBeh	Wy - negative impact on ability to learn: Disruptive behaviour within class
WyChBeh	Wy - negative impact on ability to learn: my child's own behaviour in class
WyChAttitude	Wy - negative impact on ability to learn: my child's attitude to school :
WyChAbsence	Wy - negative impact on ability to learn: my child's absences from school :
WyChASN	Wy - negative impact on ability to learn: my child's additional support needs
WyASNLack	Wy - negative impact on ability to learn: Lack of support for my child's additional support needs
WyHomework1	Wy - Since starting Primary 7, in a typical week (including weekends) in term-time, how long does your child spend doing homework?
WyHomework2	Wy - Thinking about any homework your child has been given since starting Primary 7, would you say the amount of homework has been...:
WyHomework3	Wy - And how often does your child do his/her homework without being told or reminded to do it?
WySecSchCheck	Wy - Will your child be moving to secondary school in August this year?
WySecSchTyp	Wy - Did you request a place for your child at a secondary school other than the one automatically allocated a place at by the local authority
WyReqTransp	Wy - requested a place: School is easier to get to
WyReqRel	Wy - requested a place: School has more suitable religious education
WyReqFac	Wy - requested a place: School has better facilities
WyReqTeach	Wy - requested a place: School has better reputation for standard of teaching
WyReqDisc	Wy - requested a place: School has better reputation for behavior and discipline
WyReqEthos	Wy - requested a place: School atmosphere/ethos is more suitable for child
WyReqAcad	Wy - requested a place: School has better academic reputation
WyReqPeer	Wy - requested a place: child will benefit from a change of peer group
WyReqArt	Wy - requested a place: School offers specialist teaching in an area that child is developing
WyRequestReasons3	Wy - Are there any other reasons why you chose to apply to a different school that have not already been mentioned?
WyLookForw	Wy - How much is your child looking forward to moving to secondary school?

WyConcBull	Wy - Please say to what extent you agree or disagree with the following statements about your child moving to secondary school:
WyMakeFriends	Wy - I think that my child will make new friends easily
WyPaceLearn	Wy - I am concerned that the pace of learning will be too fast for my child
WyDiffAcad	Wy - I am concerned that my child will find it difficult to keep up academically
WyMotivated	Wy - my child will feel motivated to learn at secondary school
WyOrganised	Wy - my child will be organised enough to cope with secondary school
WyAblHomework	Wy - my child will be able to keep on top of homework on his/her own
WyDiffRout	Wy - I am concerned that my child will find the new routine at secondary school difficult
WyCommCl	Wy - activities outside of school hours: Community group or club
WyTeamSp	Wy - activities outside of school hours: Team sports
WyIndivSp	Wy - activities outside of school hours: Individual sport - coached or lessons
WyArtMus	Wy - activities outside of school hours: Art, music or performance lessons
WyAcadCl	Wy - activities outside of school hours: Classes or extra lessons to improve academic skills
WyExtraSkills	Wy - activities outside of school hours: Classes to learn new skills
WyRelClass	Wy - activities outside of school hours: Religious services or classes
WyActOther	Wy - activities outside of school hours: Other activity or activities
WyCommCIL	Wy - involved in activities for more than 1yr: Community group or club
WyTeamSpL	Wy - involved in activities for more than 1yr: Team sports
WyIndivSpL	Wy - involved in activities for more than 1yr: Individual sport - coached or lessons
WyArtMusL	Wy - involved in activities for more than 1yr: Art, music or performance lessons
WyAcadCIL	Wy - involved in activities for more than 1yr: Classes or extra lessons to improve academic skills
WyExtraSkillsL	Wy - involved in activities for more than 1yr: Classes to learn new skills
WyRelClassL	Wy - involved in activities for more than 1yr: Religious services or classes
WyActOtherL	Wy - involved in activities for more than 1yr: Other activity or activities
WyNuRegAct	Wy - How many regular organised activities is your child currently involved in
WyOvernAct	Wy - In the last 12 months, has your child participated in any activities that involved an overnight stay
WyCertAward	Wy - And in the last 12 months, has your child received a certificate or award that recognises his/her achievements outside of the school curriculum
DhRespID	Dh - Sweep 8 Respondent ID
DyWTbrth	Dy - Birth cohort weight - crossectional
DyWTbth2	Dy - Birth cohort weight - longitudinal